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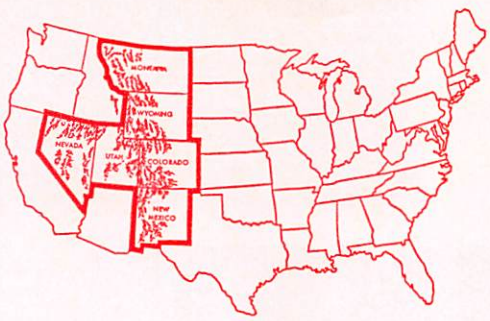

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Editorials

Articles

Organization

Features

Our Cover Photo

Utah State Capitol, overlooking Salt Lake City from the head of State Street, is constructed of Utah granite with a dome of Utah copper. Pioneer relics and other exhibits are found on the first floor. On the grounds is the imposing Mormon Battalion Monument which honors the company of 500 infantrymen who in 1846 made the long march unsurpassed in history in our war with Mexico.—Photo courtesy Salt Lake Chamber of Commerce.

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LX

STATE OF UTAH
OFFICE OF THE GOVERNO
SALT LAKE CITY

CALVIN L. RAMPTON
GOVERNOR

Utah State Medical Association
42 South Fifth East Street
Salt Lake City, Utah 84102

Gentlemen:

As Governor of the State of Utah it gives me great pleasure to extend congratulations to the Utah State Medical Association for its sponsorship of the first Utah issue of the Rocky Mountain Medical Journal.

The people of Utah are proud of the part Utah plays in the advancement of medicine in the Rocky Mountain region, and in fact the entire country. We are especially proud of our College of Medicine at the University of Utah which prepares doctors, not only for our own State, but also for the surrounding area.

This pride extends also to the nearly 1,000 members of the Medical Association who are in private practice and who devote many hours of their time in working to make Utal a better and healthier place in which to live.

I pay tribute to the doctors of Utah for their past present and future contributions to the betterment of our great state.

Sincerely,

Governor

EDITORIALS

On Drug Testing

On August 30, 1966, James L. Goddard, MD, Commissioner of Food and Drugs, issued in the Federal Register a statement re-defining consent for use of investigational drugs in human beings. Formerly, the law (Federal Food, Drug and Cosmetic Act, Section 505 (i)) regulating use of investigational new drugs in human beings, required investigators to ". . . obtain the consent of such human beings or their representatives, except where they deem it not feasible or, in their professional judgment, contrary to the best interest of such human beings."

Dr. Goddard's amended version of the section quoted raises difficulties in defining: (1) "not feasible" to mean only situations where the investigator cannot communicate with either the patient (e.g., coma) or his representative; (2) "contrary to the best interest of such human beings," to mean those situations when informing the patient, to the extent required under the new definition of consent, would ". . . seriously affect the patient's disease status and . . . the patient's best interests would suffer if consent were sought"; (3) "consent" or "informed consent" to mean (in the course of some 170 words) that the patient knows as much about the drug and the investigation as the investigator. Consent must be obtained in writing.

The major threat posed by this edict is that of making impossible adequately controlled clinical trials of investigational drugs. The threat is real because: (a) ultimately, no test animal can replace the human for validating either effectiveness or safety of drugs intended for use in humans; (b) proof of efficacy and safety requires nullification of bias on the part of both investigator and patient. Bias is most effectively abolished by use of the double-blind experimental design in drug testing—neither investigator nor patient may know whether the agent administered is:

1. Active drug or placebo—the simplest situation for determining effectiveness and safety.

2. Drug A, B, C . . . Z of a group of similar, supposedly active drugs—the situation for comparing effectiveness and safety.

Consider actual operation of the new "informed consent" requirement. In the double-blind trial situation of active drug compared with placebo, it must be fully explained to the patient that of two medicines for treatment one is definitely of no value and is harmless, while the other may be of value and may also provoke undesired effects. Will patients accept this situation? Even if attested by signature, will there be commitment deep enough to persevere in trial to the production of actual evidence regarding efficacy and safety?

Whether from disease or drug, there will be many, many instances in which patients will be uncomfortable; some will not do well and some will die. Always, adequate clinical trial will be at the mercy of the judgment of the patient or the patient's representative. Despite the investigator's best efforts at informing, this judgment will at best be prejudiced by inadequate medical knowledge, by the illness itself, by awareness that the drug being given may either be of no value at all, or, if active, may itself cause sickness.

The application of this most recent, and perhaps crippling, restriction to the conduct of clinical investigation is paradoxical, in timing at least. Now that concern with proof of safety of drugs for use in humans is firmly established, the Food and Drug Administration has turned its attention to the other side of the drug coin, namely: efficacy. Under a contract for $834,000 from the Food and Drug Administration, the National Academy of Sciences, through its National Research Council, Division of Medical Sciences, has undertaken in the next 18 months to evaluate the effectiveness of some 3,000 to 4,000 drugs introduced in the years 1938-1962. The irony lies in the fact that the best, most reliable evidence regarding efficacy is derived from double-blind clinical trials of the very kind Dr. Goddard's dictum of last August makes virtually obsolete.

Paul D. Hoeprich, MD

Slovenly Medical Terminology

THE TOOLS of our profession are becoming increasingly more refined and precise and it behooves us to take good care of them. The rusty scalpel, the transducer with poor frequency response, the leaky burette—these we reject quickly as unworthy instruments. The strange fact is, however, that we abuse and neglect our most important tool — language — with astonishing frequency.

The medical literature appalls many of us because of its staggering volume, but this is a matter beyond our control. Others are dismayed by the deadening and stereotyped pattern of its style ("In recent years investigators have become increasingly interested in . . ."), the ubiquity of cherished cliches, and the general lack of style and precision.

We should all become irate when the precision tool is used imprecisely. "Essential" is so ingrained in our professional jargon that we no longer blush at its meaninglessness. We play anagrams with a large number of ignorance-hiding prefixes and suffixes, spawning such curious entities as "pseudo-lupoid-like nephritis." Consider also the common practice of making verb-forms of eponyms, producing such monstrosities as "The patient Cheyne-Stoked" or "The ECG showed the patient to be Wenchebaching." Carrying the latter example one appalling step further, the cardiologist may refer to retrograde second-degree AV block as "Bachewencking."

Even more often we simply use the wrong word. "The patient awakened in the morning feeling nauseous." (Only his wife would know for sure.) This word is misused so often that an anonymous poet felt compelled to write:

> Poor pedantic mossy us—
> Our gorges rise at "nauseous."

Medical students and house officers are allowed to mangle the English language with hardly ever a cry of protest from members of our "learned" profession. Surely the fault is partly ours. The tool badly needs polishing.

Alan E. Lindsay, M.D.

Doctor Training for The Great Society

UP TO NOW we have tended to be comforted by the fancy that, amid the tumult and confusion of these storm-swept times, the American Medical Association has usually taken positions noteworthy for reason and a commendable degree of perceptiveness. Admittedly, we have been a bit abashed by some of the recent kooky pictures on the cover of our overshadowing contemporary, the Journal of the American Medical Association. A case in point was the colorful concoction depicting an artist's rendition of the ocular fundus after partial retinal detachment. This imaginative opus entitled "Uncertain Sunset" portrayed two lines of opthalmoscopes set along the edge of tears which had caused billowing of the retina, symbolizing the importance of careful observation of the lesion, while two turtles plodded along the strip of intact retina to "mark the slow road to recovery." (Cover picture, JAMA, July 25, 1966.)

Such slightly frivolous whimsy seems more suited in tone to certain commercial brochures and throwaway medical journals than to the dignity we expect from our national scientific journal. From beyond the grave, however, the ancient Romans remind us that questions of taste offer no sound basis for argument, so we have no right to be too critical. It can easily be imagined that the younger members of the Chicago editorial staff are eager for a fling, and there is evidence that youth often sees more in contemporary art than is apparent to their elders.

What really shook us up, AMA-wise, to borrow from the current vernacular, was the recent report of a committee of 13 members chosen by the AMA to assess the status of medical education in these United States, and to set the course for the training of the physician of tomorrow. According to newspaper reports, it appears that the AMA, in sanctioning the project and choosing its committee, decided to assign this task mostly to persons outside the medical profession. Many physicians will consider this a naive and reckless decision. After all, it seems scarcely necessary

to point out the extreme unlikelihood that the engineering profession, to take a random example, would call in a group of doctors to tell them how to design and construct a Verrazano Bridge, or how to train the kind of men who can do it.

Having started with such an impractical approach, it is not too surprising that the commission's report has a quaint Alice-in-Wonderland quality. Our newspaper says the panel recommends that the general practitioner is to be replaced in the future by a "primary physician" or "medical coordinator." He appears to be conceived as something of a combined sociologist and public health worker, not particularly concerned with the "episodic handling of acute conditions." It sounds as if each citizen is to be provided with a local Ann Landers, available at all times for counseling, but obliged to call the doctor at once if the going gets tough. Furthermore, we are told that the committee recommends abandonment of the traditional internship. "It is the most wasteful year of training," says chairman John S. Millis. "It duplicates the first year of residency and the last year of medical school."

One wonders whether we may be confronted here by a suitable application for the jocular aphorism about an expert being any man away from home. We know a host of medical men who will profoundly disagree with these opinions of the panel. If lifelong, incessant involvement in the problems of medicine and medical education offers a basis for judgment in such matters, then these physicians are at least as fitted to have a hand in planning the training and sphere of the future doctor as are the members of the AMA-sponsored non-medical 13-man Commission.

Richard P. Middleton, M.D.

National Medicolegal Symposium to Be Held in Miami Beach

Miami Beach has been selected as the site for the 1967 National Medicolegal Symposium jointly sponsored by the American Medical Association and the American Bar Association.

To be held at the Fontainebleau Hotel March 9-11, the meeting is one of the most significant on medicine and the law and is expected to be attended by 2,000 physicians and lawyers.

The national forum promotes mutual knowledge, appreciation, and understanding between the two professions. It affords an opportunity for lawyers and doctors to discuss matters of common interest and to seek solutions for interprofessional differences.

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—Roadblocks in interprofessional communications.

—The physician as a client.

—Legal rights of the mentally ill.

—Legal therapy for health-care problems.

Among the topics are compulsory court attendance, compensation for the medical witness, medical evidence in jury trial, "battered child" laws, and combatting health-care frauds.

The meeting will start at 1 p.m. Thursday, March 9, and will conclude at noon Saturday, March 11.

Registration fee, which includes a reception and a copy of the proceedings, is $30.00.

Advance registration and additional information may be obtained by writing Law Division, American Medical Association, 535 North Dearborn Street, Chicago, Illinois 60610.

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See also Record of surgery on John Sellers' mother

Highlights of early surgery in Utah*

Richard P. Middleton, MD, Salt Lake City

FOR THOSE who have time and interest for a systematic survey of the rise and progress of surgical practice in Utah since the first settlement in 1847, I heartily commend a highly readable volume entitled "Of Medicine, Hospitals and Doctors." Gathering the data and writing the book was for many years a major hobby-project of the late Dr. Ralph T. Richards, former senior surgeon of the Salt Lake Clinic, well remembered by most of you. He worked long and hard at it and, in 1953, published by far the best compendium of source material in this field. It is well worth a place on the library shelves of any Utah physician. I hope that by generous cribbing from several source materials, including Dr. Richards' book and a couple of autobiographic sketches, I may be able to recapture a bit of the atmosphere of early-day Utah surgery (and incidently of medicine, which is so inseparably bound with it).

For our purposes, the surgical history of Utah begins with a period of 25 or 30 years which might be called the pre-hospital or even pre-medical period, coinciding by chance with the life-span of Brigham Young in Utah. This era was marked by the almost total absence of well-trained medical men in the territory of Utah and by the relative indifference or even mild hostility of the people toward those who were active in the medical field. Their attitude was not necessarily unintelligent in view of the meagerness of what most so-called doctors then had to offer.

Brigham Young was unquestionably a master organizer and a man of enormous drive and sagacity in temporal affairs, who resolutely pushed his ever-increasing stream of immigrant converts away from Salt Lake City into all fertile or promising valleys in Utah and often far beyond. According to Dr. Richards, in 1871 there were about 18,000 people in Salt Lake City, but the number in the 267 outlying Mormon settlements had already reached the astounding total of 70,000, or practically 85 per cent of the territory's population. It appears that at this time there was not a single graduate of a regular or so-called "allopathic" medical college in the entire area. There were, however, several Botanical or Thompsonian physicians, one of whom was Willard Richards, Ralph's grandfather, who was among the most prominent of the early Church leaders. Willard Richards had paid $20 for a diploma that attested he was entitled to be called Doctor and had the right to "administer, use and sell the medicine secured by Samuel Thompson by Letters Patent from the President of the United States." There was further provision that the "rights" were good for one year only. It thus appears that the current vogue of requiring all of us

Fig. 1. First Quarters of St. Mark's Hospital, a converted Adobe House on the corner of Fourth South and Fifth East. This was the First Hospital in Utah, and also the First in the Intermountain West.

*Adapted from a paper delivered before the Salt Lake Surgical Society.

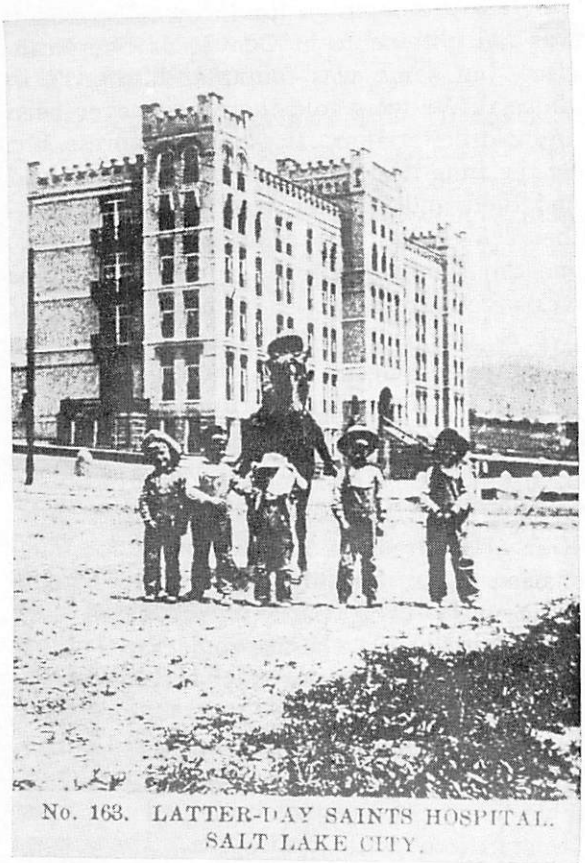

Fig. 3. Early photograph of L.D.S. Hospital (probably 1904). Although now unrecognizable, this building still exists as the central core of the present vastly expanded institution.

"In 1897, a hospital was rented by a group of six Ogden doctors and opened its doors to all practicing physicians in the city and county. The terms were reasonable—$10.00 a week for ward patients and $15.00 per week for private rooms. This included room, board and nursing care.

"In 1904 we removed the first prostate gland done in Ogden. The patient was an old man with almost total retention of urine, suffering terribly. The operation was done in a private home with spinal analgesia (tropococaine). All prostate operations at that time were done through the perineum.

"Dr. Osgood and I bought the first x-ray machine in Ogden. It was a static machine which occupied a space 8 by 10 feet, and we sometimes gave ten-minute exposures for a hip-joint picture. When the picture was finished it was rarely of any benefit.

"The first blood transfusion done in Ogden, I did at the Dee Hospital, February 9, 1913, to Mr. Samuel Price of Malad, Idaho. Mr. Price, while working in a saw-mill near Malad, was wounded in the knee with a circular saw. This wound did not enter the knee-joint, but became infected and when he came to Ogden, the wound was wide open and bleeding. We dressed the leg wound and tried to clear up the infection, but it continued to bleed, and he began hemorrhaging from the nose, gums, kidneys, and even from the intestinal tract. He became anemic and it was easy to see that he was slowly bleeding to death. I had never done or even seen a blood transfusion, but had read of the marvelous results obtained in cases of hemorrhage. One Sunday morning I went to the hospital; he had been bleeding profusely through the night. His lips were white and his ears were so pale that light showed freely through them. It was apparent that if anything was to be done it must be done quickly. This was several years before we knew anything about typing of blood and therefore no thought was given to compatibility. He had a brother who volunteered to be donor. We had no instruments especially made for blood transfusions, so we took some small glass tubing and with a gas flame drew it out to a point, filed it off and connected the two glass tips with a short rubber tubing. This was all paraffined carefully and then the donor's radial artery was dissected and the recipient's brachial vein was dissected. One of the glass tips was placed in the donor's radial artery and the other end in the vein of the recipient. The ligature was then taken off the artery of the donor and blood flowed freely into the recipient. While receiving the blood, the color came into his lips and ears and it was apparent that he was getting great benefit from the blood. We had no method of measuring the amount taken, but we let the blood flow until the donor became faint. The patient did not have any reaction to the transfusion. By the next morning the bleeding had entirely stopped and he was like a different individual. He is a well and healthy man at the present time."

My own father's unpublished reminiscences, written mostly after his retirement, give an interesting picture of early-day rural

practice in Southern Utah (Cedar City). He started the same year as Dr. Rich, 1894, and transferred his activities to Salt Lake City in 1907. Let us begin with some glimpses of a medical school in the early 90's:

"Those were the days of the so-called resurrectionists or, in less florid language, the body-snatchers. Dissecting material was at a premium and not infrequently graves were robbed to furnish the necessary cadavers. The colleges said nothing, but paid the price and pickled the bodies away where they would not be likely to be found. On one occasion at the school which I attended, but previous to my time, a group of eight students was assigned to a dissecting table. When they were all assembled and the sheet was removed from the cadaver one of the boys fell over in a faint. Investigation showed that the body they proposed to dissect was that of his own sister, which had been stolen from her recently sealed grave.

"In the early nineties antiseptic surgery was still debatable and aseptic surgery was just being born. It was a common thing to see the surgeon hold the scalpel in his teeth between acts, and take hold of the close-hanging skeleton to illustrate some point of bone anatomy. Rubber gloves were unknown and street clothes were still worn by the operators. When they did wear big aprons to protect their clothing, these were not sterilized.

"Swift surgery, a hangover from the pre-anesthesia days, was the rule. The surgeon would cut like greased lightning and students stood on tiptoes to try to follow the consecutive steps of the dramatic performer. He never seemed to stop to stanch the bleeding until he got through, and the arteries would spurt to the ceiling. A surgical operation in those days was a gruesome thing.

"When I received my license to practice, I took a suite of three rooms for an office in Cedar City and hung out my shingle. I was the first physician to settle down regularly in that town and my 1,200 fellow townspeople were pessimistic about my future and doubtful about my ability to earn a living. I began with riding-horses and then bought a carriage for the long tiresome day-and-night trips over bumpy roads through primitive country. As my time became more valuable, I used the telegraph line to arrange relays of fresh horses at intervals of about 10 or 12 miles. The telegraph operators all became my friends and they would order my dinner in a town ahead so I would not have to lose any time on the frequent tedious trips. From the first I practiced surgery, limiting myself to such operations as came within the domain of my knowledge. Looking backward now more than 40 years, my greatest satisfaction is the fact that I seemed to know instinctively my limitations and did not undertake things I could not carry through successfully.

"Having no other physicians or trained nurses to assist me, I taught the fundamentals of asepsis to young women of the locality who wished employment. Cultures were made from their sleeves and from under their fingernails and then I demonstrated with the microscope the growths obtained. These intelligent young people soon became conscious of the fact that bacterial life abounds everywhere. I took a good level-headed farmer and taught him to give ether and chloroform. It was amazing the way these young assistants took to the work and the splendid help they were soon able to render.

"I eventually started a small hospital, but I was obliged at first to do my operating in private homes, utilizing domestic furniture for equipment. The table on which my patient was placed was not infrequently the dining table of the family and the cooking utensils were variously employed to sterilize instruments and dressings. Often I had to stand in the way, like the angel with the flaming sword before the Garden of Eden, to keep multitudes of lay visitors from soiling my sterile linen or contaminating my instruments. As many people as could pack into the room would crowd in and the windows would be darkened by the heads of inquisitive spectators. Not infrequently one and sometimes several would fall in a faint while the operation was in progress. Often I had to utilize my spectators as assistants. It is amazing to me now to remember how well these farm people acquitted themselves at tasks that were entirely new and dramatic to them.

"Early in my practice I received an urgent distress call from a town 20 miles away, where I found a little girl of 6 who had got something down her windpipe that was causing great and alarming distress. She was black in the face and it was evident there was no time to lose. I hastily sterilized my instruments and linen. I was obliged to coach two farmers who had never seen chloroform before in giving the anesthetic. Another farmer was scrubbed up and adorned with a sterile apron to hold retractors and act as assistant. Just as I got the windpipe laid bare, the child ceased to breathe, probably from an over-dose of chloroform. I quickly plunged the scalpel through the trachea and severed two or three rings. Then, with the farmer-assistant holding the edges apart with artery forceps, I proceeded to do artificial respiration and revived the patient. After breathing was re-established, I put a probe down the windpipe and located a metallic substance. With the aid of a long slender forceps, a large hooded eyelet was brought up, which had been part of the fastening apparatus of a man's shoe.

"The trachea was swollen and full of mucus. When I allowed its edges to fall together difficult breathing and cyanosis returned. Having no tracheotomy tube, I resorted to the expedient of fastening a string of heavy Chinese silk to each edge of the incised windpipe, tying them together around the back of the patient's neck. This kept breathing normal. After the edema subsided, I was able to remove the silk cords and stitch the parts together. She made a good recovery and has been relating the story of her escape for 35 years. There was no extraordinary skill about this, but the dramatic element appealed so strongly to those who witnessed it and assisted with it that they wrote letters to their friends in every direction, heralding my name far and wide.

"I went through medical college without seeing an operation for appendicitis. Reginald Fitz of Boston had startled the world by making the statement that nearly all inflammation in the right lower abdomen was really appendicitis at the beginning, but the profession was not quick to act upon his wise generalization and there were still descriptions in leading textbooks of typhlitis, paratyphlitis and perityphlitis. I saw patients suffering with the group of symptoms which we called inflammation or obstruction of the bowel, most of whom went on to a fatal issue with only expectant treatment. One young chap who came under my care went through the classic syndrome of peritonitis and died. I begged the parents to let me do a post-mortem and they consented. The abdomen was full of pus and when I examined the appendix it showed a perforation. I began to get wise. My first operation for appendicitis was entirely successful and after this patients with appendicitis were mostly saved by operation except the ones that had been neglected so long they already had peritonitis."

The early surgeons in Salt Lake City had the advantage of more adequate hospital facilities than their colleagues in smaller communities. The history of early surgery in Salt Lake City is largely implicit in the story of the three large voluntary or church-supported hospitals—St. Mark's, Holy Cross, and L.D.S. Hospital. St. Mark's is the oldest of these, having been founded in 1872 in a small rented adobe house on the corner of 4th South and 5th East. It was the first hospital in Utah, as well as in the Intermountain West. In 1876 the hospital moved one block north, where a brick building was purchased, doubling hospital capacity to 12 beds. The hospital was organized chiefly for the care of industrial casualties from the mines and smelters and one of the main problems was lead poisoning. This was the heyday of the famous Emma Mine at Alta, where the soft ore containing a high percentage of lead was mined under very dusty conditions. Dr. John F. Hamilton was the first and only staff member at St. Mark's for 20 years. He was graduated before the days of antiseptic surgery and he never accepted the teachings of Lister, but he had an honorable career.

In 1893, St. Mark's Hospital was moved to its present location, the decision having been strongly influenced by the opinion of a noted Boston chemist, Mr. Charles T. Jackson, that analysis of the waters of the Warm Springs in North Salt Lake showed them to have valuable therapeutic properties. Through the

example of famous European spas, balneotherapy was then in high esteem, one of its most noted exponents being Dr. Simon Baruch of New York City, father of Bernard Baruch, the financier.

Dr. Wayne Babcock, outstanding surgeon of Philadelphia, was one of the first interns in the new St. Mark's Hospital. He recalls that "instruments were boiled and bichloride or carbolic solutions used. No masks, caps or gloves were worn, but an apron over parts of street clothing. I do not recall the presence

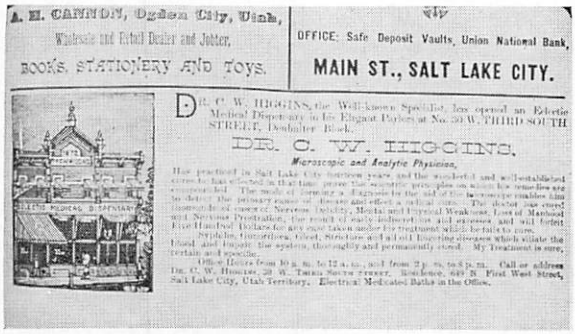
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Fig. 4. Breezy quack medical ad from the Salt Lake City Illustrated Directory of 1887. It says "Syphilis, Gonorrhea, Gleet, Stricture, and all old lingering diseases which vitiate the blood and impair the system, thoroughly and permanently cured. Will forfeit Five Hundred Dollars for any case taken under his treatment which he fails to cure."

of a microscope and bacterial stains or tissue examinations were not in use. I also served as apothecary. I think I gave chloroform, the preferred anesthetic, about 50 times during the service without mortality, although I was frequently frightened by the patient's condition."

Dr. Hamilton was succeeded as medical director of St. Mark's Hospital by Dr. Frank S. Bascom, whose tenure lasted from 1894 until his death in 1932. He was a vigorous character and an excellent clinician. His executive ability brought high standards to the hospital, attracting a superior staff. He instigated the founding of the nursing school at St. Mark's in 1894, the first hospital nursing school in the Intermountain West. He helped found the Utah State Medical Society and was its first president. Other prominent early-day surgeons at St. Mark's were John F. Critchlow, Union Worthington, Augustus C. Behle, and T. B. Beatty. Dr. Beatty gradually withdrew from private practice and did a tremendously valuable service to Utah in organizing and administering for many years the State Board of Health.

Holy Cross Hospital was opened in an abandoned barn on 5th East in 1875, "at the earnest request of the miners and smelter workers in the Intermountain territory." Sisters M. Holy Cross and Bartholomew were sent to undertake the work. In 1882 they purchased the present 10-acre hospital site, then distant from the city. By 1890, the number of sisters had increased to 15 and the average daily census of patients was 50. In 1901, a training school for nurses was inaugurated.

The first surgeon at Holy Cross Hospital was Dr. Joseph M. Benedict, who received his surgical training on the battlefields of the Civil War. Dr. Benedict was, in fact, the only surgeon permitted to operate at Holy Cross from 1875 to 1886. He was easily the dean of Utah surgeons during this period, a bold man who undertook such formidable procedures as amputations at the hip-joint and shoulder-girdle, radical breast operations, and abdominal section. He was never really converted to the new doctrines of Joseph Lister, however, and this fact led to a request for his resignation in 1886. Some of the most prominent surgeons at Holy Cross Hospital after the turn of the century were Dr. Harry N. Niles, Dr. A. J. Hosmer and Dr. E. F. Root. The latter two are well remembered by some of us here. Their high repute was well deserved.

The L.D.S. Hospital came much later than St. Mark's and Holy Cross. Its construction was begun in July, 1903, and the building was ready for use early in 1905. Impetus for its construction was a bequest of about $80,000 worth of real estate by Dr. William H. Groves, a Mormon convert and an immigrant dentist from Nottingham, England. Dr. Groves died in 1895. Dr. Joseph S. Richards attended him in his final illness and dissuaded him from his aim to endow a library by pointing out the greater need for more hospitals. The Groves will stipulated that the institution should be known as the "Dr. Wm. H. Groves Latter-day Saints Hospital" and that Dr.

Joseph S. Richards should be "medical director of the same as long as he lives." The actual cost of the original building was several times the amount received from Dr. Groves' estate. The first patients were charged $1.50 per day for ward and $2.25 for semi-private accommodations.

When the L.D.S. Hospital was opened, most of Salt Lake's leading surgeons were on the staffs at St. Mark's and the Holy Cross Hospitals. A few of them transferred to the L.D.S. staff, including Dr. Joseph Richards and Dr. S. H. Pinkerton, a highly trained and very competent surgeon. Dr. Richards was soon joined by his son Ralph, and other newcomers quickly built up the staff to sizable proportions. Prominent early names on the surgical roster were Samuel C. Baldwin, pioneer orthopedist, the partners Allen and Middleton, and Joseph E. Tyree. They were abetted by several extremely able internists, including Gill Richards, who was Ralph's cousin, William R. Tyndale, and Eliot Snow's father, Clarence Snow. Dr. Snow pioneered blood transfusions at the hospital, using large paraffin-lined vessels known as Kimpton tubes.

As we all know, the contemporary history of all three of these historic voluntary hospitals is one of rapid growth in patient capacity and scientific equipment. May we also be capable of continuing the great tradition of steady progress in the art of surgery, set by our predecessors—the pioneer surgeons of Utah! •

Plastic and reconstructive surgery in a state prison*

Jose Garcia Velasco, MD, R. M. Woolf, MD, and T. R. Broadbent, MD, Salt Lake City

SOCIETY TRIES, judges, and commits many men and women to state prisons annually. In some instances the individual involved is forgotten by society at large for one to twenty years, depending on the term of punishment. None of these individuals is forgotten by the prison warden, the parole officers, commissioners, the prison doctor and his staff, or least of all, by the individual himself and by his or her family. Committed and uncommitted members of society frequently have emotional and physical problems, and often these problems are related. Those of us, at large in society, are at liberty to seek aid for our ills, but often the captive does not have this choice.

In 1959 we sought and gained the cooperation of our hospital, the Utah State Prison warden, commissioners and prison doctor and his staff in extending our plastic surgery training program to the prison. This was designed to be a service, when indicated, to the inmate at his or her request and simultaneously served to augment our Latter-day Saints Hospital based training program. The willing cooperation of all persons involved has made the program a success in all respects, and essentially without cost to persons or institutions.

During the years involved, 681 operations have been performed. Accurate records have been kept during the past five years (1961-1966), during which 487 operations were done under local anesthesia, of the following varieties:

Rhinoplasties	158
Scar Revision	94
Submucous Resection	55
Blepharoplasty	42
Rhytidectomy	36
Otoplasty	31
Miscellaneous	25
Hand Procedures	16
Frontal Rhytidectomy	13
Face Sanding	8
Chin Implants	5
Excision Tumor Skin	4
TOTAL	487

*Department of Plastic and Reconstructive Surgery, Latter-day Saints Hospital and Utah State Prison Hospital, Salt Lake City, Utah.

Barlas and Kolff report sixteen cases of ARF following blood transfusions.[1] Four patients recovered after conservative therapy. Twelve patients required treatment with the artificial kidney, with recovery in nine. The authors stated that "In six of them recovery would have been very difficult or impossible without hemodialysis." ●

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Glutethimide—long-term use

Thomas Ray Broadbent, MD, and Robert M. Woolf, MD, Salt Lake City

This case report on long-term use of Glutethimide, or Doriden, bears out, with clinical and laboratory data, the safe use of this fairly effective sedative.

MEDICAL JOURNALS frequently publish single case reports of bizarre or dangerous side effects which have been drug-induced. Not often does the physician read about an eminently satisfactory result with a sedative known to be subject to frequent abuse. Many scientific papers have documented (to a greater or lesser degree) acute and chronic intoxication, as well as addiction, even while admitting the efficacy of the compound if used in recommended dosage. The following single case report records the history of a patient who took glutethimide daily for about eight years.

Report of a case

Mr. C.N.B., aged 81, was involved in an automobile accident on April 25, 1954, when his car ran into an open sewer trench. On hospital admission, examination revealed multiple fractures of the nose; compound, comminuted fractures of the mandible bilaterally; and a basal skull fracture. The remainder of his physical examination was normal for his age with his blood-pressure recorded at 100/80; temperature, 99° F.; pulse, 74; and respirations, 18. Blood and urine examinations were likewise normal.

On April 30, 1954, after supportive therapy following his injury, an open reduction under general endotracheal anesthesia was done with wire-fixation and pinning of the mandible and realignment of the fractured nose. Lacerations were repaired, and the basal skull fracture was treated expectantly. Repeated complete blood-count and urinalyses on the same day were normal.

He was discharged on May 4, 1954, following an uncomplicated postoperative course. At that time he was placed on glutethimide 0.5 gm. each night for assistance in sleeping.

The patient progressed well. In later follow-ups and upon re-examination five years later (November 4, 1959), he had no problems relative to his injury. The following history was obtained: By preference, he had continued to take glutethimide 0.5 gm. at bedtime in order to improve his sleep. He reported no side effects, no craving for the drug, but had noted improvement in its effect by increasing the dose to two tablets (1 gm.) and had been on that dose each night for about one year. He experienced no drugged or "hangover" effect in the mornings and had experienced no gastrointestinal upsets due to the glutethimide. Though he was not experiencing pain or distress, he decided to continue this medication.

The sedative was allowed for sleep, but the dose was decreased to 0.5 gm. at bedtime. Off and on, the patient voluntarily increased this to 1 gram. On January 19, 1963, at age 89, the patient expired in cardiac failure.

A review of his lab work revealed the following:

URINALYSIS

	4/25/54	4/30/54	12/11/62
Sp. Gr.	1.000	1.020	
Color	Clear	Clear	
Albumin	0	0	0
Sugar	0	0	0
pH	5	5.1	5
Acetone	0	0	0
WBC	5–7	0	2–3
RBC	0–2	0	0
Casts	0	0	0

COMPLETE BLOOD COUNTS

	4/25 /54	4/30 /54	11/4 /54	11/25 /59	12/23 /59	12/11 /62
Hgb (gms) ..	13.0		15.4		12.4	12.4
Hgb (%)	86.5		99			80
Hematocrit (%)	43		50			40
WBC 4,600		7,050	5,900	6,000	6,450	7,250
Polys	57	71		57		
Lymphs	37	18		39		
Mono	5	4		3		
Eosin	1	5		1		
Baso	0	1		0		
Myelo	0	0		0		
Metamyelo ..	0	1		0		
Platelets	adq.	adq.		adq.		

Summary

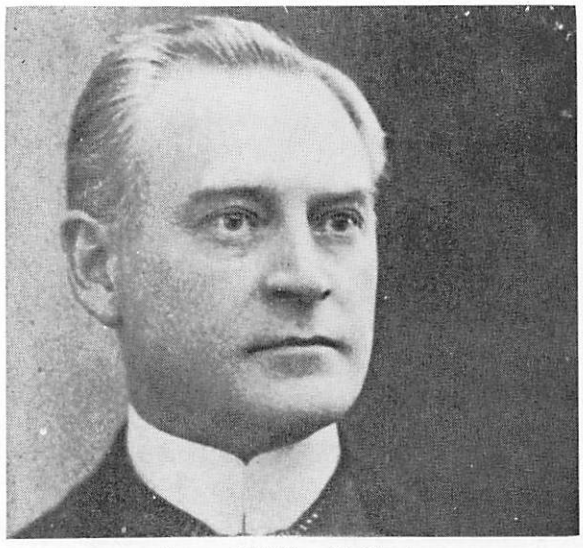
Though on glutethimide 0.5 gm. at bedtime (and often 1.0 gm.) from May, 1954, to January, 1963, an elderly patient experienced assistance in better sleeping without any subjective complaints relative to use of the drug. On no occasion did he have any clinical or hematological signs of toxicity. ●

Samuel Clifton Baldwin pioneer orthopedist*

Robert W. Carson, MD, Salt Lake City

For the Western Orthopedic Association's first meeting in Salt Lake City, it is appropriate to pay tribute to Utah's first orthopedist and to establish his proper place in history. Dr. Baldwin has been overlooked in the previous histories of Western Orthopedics published by Drs. Winnet Orr and Warren White, probably because he was not a prolific writer or inventor and was hundreds of miles from the nearest medical center. He was, however, the third orthopedic surgeon in the West; despite a limited education he became internationally known and respected by his contemporaries as a dedicated practitioner. Although he has no long bibliography, his work on muscular dystrophy led to grants for the University of Utah which have amounted to several million dollars. These grants now support a significant proportion of the research budgets of the departments of Medicine and Biochemistry and in these departments he is still remembered with some reverence. He also deserves a place in the memory of the orthopedic community.

Dr. Baldwin came to medicine at a relatively late age. Born in Louisville, Kentucky, in 1855, his schooling was interrupted at the age of 16 by his father's death, and only after ten years as family breadwinner did he begin his medical studies. He spent a year of preceptorship with a Louisville physician and then, after two five-month terms at the Louisville College of Medicine, was awarded his degree in 1884. During the summer of 1883, young Baldwin's preceptor had taken him to lectures at Belleview Hospital, where he came under the influence of Dr. Louis Sayre. Here, undoubtedly, the twig was bent. The era of specialization was just beginning, and it was said that a doctor should have ten years of general practice before becoming a



Samuel Clifton Baldwin, about 1896

*Read at the Western Orthopedic Association Meeting, Salt Lake City, October 12, 1965.

specialist. Dr. Baldwin fulfilled this requirement by practicing three years in Kentucky and seven in Montana before moving to Salt Lake City to become an orthopedic surgeon.

When Dr. Baldwin arrived in 1894, Salt Lake City with a population of 45,000 was the fifth largest city in the West. San Francisco and Denver were much larger; Los Angeles, Portland and Seattle were of similar size; and Tucson and Phoenix were mere villages of 4,000 to 5,000 people. At this time, there were only two orthopedists west of Kansas City—Dr. Harry Sherman had been in San Francisco for eight years, and Dr. George Packard, a charter member of the American Orthopedic Association, had been practicing in Denver for three years.

Dr. Baldwin gradually acquired his specialty education by traveling extensively in the East and in Europe. As a disciple of Dr. Sayre, he was an artist with plaster and a firm advocate of plaster-fixation for back problems. For the application of body jackets, his high-ceilinged plaster room was occupied by a large tripod from which his patients were suspended by a leather collar. Disc surgery was unknown before Dr. Baldwin was 80, and his results with casts were probably better than those obtained with most earlier surgical methods.

As a widely travelled orthopedist, Dr. Baldwin arranged for Dr. Adolph Lorenz of Vienna to visit Salt Lake in 1902. Lorenz had been commissioned by the Armour family of Chicago to perform his bloodless hip surgery on their daughter, Lolita, reportedly for a fee of $50,000. After holding several clinics in Chicago, Dr. Lorenz moved westward, holding clinics in Denver, Salt Lake City and San Francisco. Dr. Baldwin arranged a clinic of congenital hips for him at Holy Cross Hospital. Orthopedic surgery has probably never received such widespread publicity as attended Dr. Lorenz's sweep across the country; the great surgeon was heralded as an international hero. In the Salt Lake Tribune, two feature articles preceded his visit and, on the following day, two full center-columns of the front page recorded the local drama. The patients' families, reporters, and curiosity seekers congregated in the operating room, responding to his theatrics with gasps and applause. At the next AOA meeting, congenital hips were the focus of attention and, when follow-up reports of Dr. Lorenz's cases were presented, a controversy raged over the press-agentry and the originality and merit of his method. At this 1903 meeting, Dr. Baldwin was installed, becoming the third member in the West, and bringing the total membership to fifty-six.

When World War I finally closed the era of strap-and-buckle orthopedics, Dr. Baldwin was in his sixties. In his presidential address to the Utah State Medical Association in 1917, he emphasized the Army's need for experienced older doctors, then promptly volunteered as a lieutenant. He rapidly rose to the rank of Lieutenant Colonel and ultimately served as Chief Surgeon for the Port of New York Authority Hospital System. He was discharged shortly after the Armistice and was soon promoted to full colonel in the Army Reserves. He was denied a request for active duty at the beginning of World War II because of his age.

Devotion to crippled children

Throughout his career, Dr. Baldwin's major interest was in the treatment of crippled children. At the inception of the Mormon Primary Association's program for the care of crippled children in 1911, and for many years thereafter, Dr. Baldwin served as its only orthopedist. When the Primary Children's Hospital was incorporated, he organized the first medical staff and served as Chief of Staff until his resignation in 1937, at the age of 82. He gave constant devotion to "his children" and "his hospital" for more than twenty-four years.

In his last years, Dr. Baldwin devoted more and more of his time to the project that ultimately became his legacy to medicine. For years the doctor had been compiling a series of muscular dystrophy cases and experimenting with various forms of treatment. He determined that these were definitely hereditary and more common in the Intermountain West than would be expected from published reports. There were large polygamous families in Utah and the thorough geneological records of the Mormon church afforded an ideal opportunity for the study of hereditary diseases. A barrier of superstí-

tion existed, however, and crippled children were often hidden from outsiders. Where other groups failed in their attempts to ferret out these "stigmatized" children, Dr. Baldwin gained the confidence of their families and convinced them of his sincere intent. By 1941, he had collected more than 400 dystrophy cases. He had corresponded with private charities such as the Carnegie and Rockefeller foundations and with other authorities on muscular dystrophy, seeking support for his project, but without success. Eventually he persuaded the president of the University of Utah to appropriate a very small sum of money and to provide a brief leave of absence for a professor of genetics to study his cases. Finally, in 1944, a little political maneuvering set the stage for a development beyond Dr. Baldwin's wildest dreams.

Senator Elbert Thomas of Utah was chairman of the Senate Committee which held the purse strings for the United States Public Health Service. Dr. Thomas Parran, Surgeon General for the Public Health Service, was invited to Utah to give the commencement address for the first graduating class of the new four-year medical school in September, 1944. On this occasion, both Dr. Baldwin and Dr. Parran were awarded honorary doctorates of science. Dr. Baldwin spent most of the day with Dr. Parran, showing him dystrophy cases and telling him of this unique opportunity for research. Within one month, Dr. Baldwin died of coronary thrombosis. Several months later, the U. S. Public Health Service opened its new post-war program of medical research grants to replace those of the Armed Services, begun during the war. This program, which now amounts to almost a billion dollars a year, began twenty years ago with an allotment of one hundred thousand dollars. That first year the entire amount came to the University of Utah in the name of Dr. Max Wintrobe for the study of hereditary diseases. This grant is still active and now, along with ancillary grants, some of which are grouped together as the Baldwin Memorial Fund, amounts to four hundred thousand dollars a year. The earliest papers concerned the muscular dystrophies and were published by Doctors Wintrobe, Tyler and Stephens in the Annals of Internal Medicine, 1950. One pedigree of fascio-scapulohumeral dystrophy is still the largest ever published. A polygamous Utah settler from England was traced through six generations and 1,249 descendants among whom 159 cases of dystrophy were found. Since then, the studies have expanded into other areas of hereditary and degenerative diseases and, to date, some 550 papers have been published.

Dr. Baldwin is described as quiet and modest, a courtly gentleman of the old South. He was short of stature with handsome features and impeccable attire — usually pinstripe trousers, cutaway coat, carefully knotted maroon tie and a fresh red boutonniere. His coat pockets carried jelly beans to be dispensed to the children on his daily rounds. The doctor was elderly when the automobile arrived and though he was quick to adopt this new device, he never quite mastered it. Allegedly, even on the highway, he drove his car in low gear. The doctor had little regard for money and was never known to send a bill. He lived modestly and accumulated almost no estate except for his home. His only indulgence was travel, to improve his knowledge and skill as an orthopedist. He had an eye for bargains and apparently never scrapped anything. He once bought the canned goods from a burned out grocery store, providing his family with an almost infinite, albeit unpredictable variety of meals. His roll top desk was legendary for its precarious accumulation of journals and mail but he kept no records except for his dystrophy collection.

Although sometimes stern in surgery and emphatic in the conference room, he had a brusque wit and was generous and kind to his younger colleagues. His last years were marked by the loneliness of a man who had totally dedicated himself to his work and had outlived his contemporaries. He was a familiar figure at the annual meetings of the American Orthopedic Association (AOA), and the American Academy of Orthopedic Surgeons (AAOS), where he was a guest at the presidential table several months before his death.

Dr. Baldwin died at the age of 89 after sixty years of service as a physician. He had actively practiced in Salt Lake City for fifty years and was known affectionately as the "Dean of Medicine" in Utah. •